

PART-1 DIESEL ENGINE/GENERATOR EXHAUST

1:1 SCOPE

- A. Provide factory built exhaust system that is tested and listed by the Underwriters' Laboratories, Inc. for use with medium heat equipment burning gas, liquid or solid fuels, as described in NFPA-37 and NFPA-211, which produce exhaust flue gas temperatures not exceeding 1400°F under continuous operating conditions.
- B. The U.L. listed fiber insulated exhaust system shall have skin temperatures that have been obtained by Underwriters Laboratories (UL) test procedures. The published surface temperatures shall be the result of the UL103 1000° Fahrenheit chimney test.

1:2 CONSTRUCTION

- A. The double wall exhaust system shall have a 304 stainless steel inner liner and an aluminized steel outer jacket. The materials and construction of the modular sections and accessories shall be as specified by the terms of the product's U.L. listing.
 - 1. Fiber insulation between the inner liner and outer jacket shall be a nominal two inches thick.
- B. Aluminized steel surfaces exposed to the elements shall be protected by a minimum of one base coat of primer and one finish coat of corrosion resistant paint suitable for outer jacket skin temperatures of the given application. All primer and paint to be supplied by the installing contractor and shall be equivalent to series 4100 or 9400 as manufactured by Rust-Oleum. Alternatively, an outer jacket constructed of 304 or 316 stainless steel may also be considered in lieu of painting.
- C. This exhaust system shall be designed and installed to be gas tight and thus prevent leakage of combustion products into a building. Additionally, the vent system shall also be U.L. tested and listed to 60 inches internal water column pressure.
- D. Inner pipe joints shall be securely connected and sealed with factory supplied over-lapping V-bands and appropriate sealant as specified in the manufacturer's installation instructions.
- E. Connections to silencers and expansion joints shall be made with matching flanges. Matching flanges shall be of the same size, bolt hole spacing and pressure rating as the flanges to which the connections are made.
- F. Roof penetrations shall be suitable for the specified roof construction and shall comply with the manufacturer's installation instructions.
- G. The exhaust system shall be designed to compensate for all flue gas induced thermal expansion.

PART-2 EXECUTION

2:1 INSTALLATION

- A. Inner pipe joints shall be sealed by use of factory supplied overlapping V bands and sealant as specified in the manufacturer's installation instructions.
- B. Roof penetrations shall be suitable for a noncombustible roof and shall be according to the manufacturer's detail drawings and installation instructions

- C. When installed according to the manufacturer's installation instructions, the exhaust piping and its supporting system shall resist side loads at least 1.5 times greater than the weight per foot of the piping for both horizontal and vertical portions of the system.
- D. The exhaust system shall be installed according to the manufacturer's installation instructions and shall conform to all applicable state and local codes.
- E. Provide all supports, guides, bellows type expansion joints, pressure relief valves, guy sections, guy tensioners, roof thimbles, roof flashings, storm collars and flip top terminations as required to provide a complete system per the manufacturer's installation instructions.
- F. The entire exhaust system from the muffler discharge to the termination point, including all accessories, except as noted, shall be from one manufacturer.

PART-3 WARRANTY

3:1 WARRANTY

- A. The exhaust system shall be warranted against functional failure due to defects in material and manufacturer's workmanship for a period of ten years from date of installation.
- B. The inner diameter of the exhaust system shall be verified by the manufacturer's computations. The computations used shall be technically sound, follow ASHRAE calculation methods and shall incorporate the specific flow characteristics of the inner pipe. The contractor shall furnish the exact operating characteristics of the engine(s) and muffler(s) to the factory representative.
- C. The manufacturer shall provide "to scale" drawings depicting the actual layout. The exhaust system shall be installed as designed by the manufacturer and in accordance with the terms of the manufacturer's 10-year warranty and in conjunction with sound engineering practices.
- D. The factory built modular exhaust system shall be furnished by a vendor organization that assures design, installation and services coordination. As well as, providing "in-warranty" and "post-warranty" unified responsibility for owner, architect, consulting engineer and contractor.

PART-4 PRODUCTS

4.1 MANUFACTURERS

- A. Product specification requirements shall be met by using Selkirk Metalbestos Model-IPS exhaust flue or equivalent as approved by the engineer. Equivalent submittals shall specify manufacturer's model number, and other pertinent identification, and attest that the alternate material is in compliance with all specification requirements.

END OF SECTION 15575